

### REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

In the present application, Claims 1-10, 12-24, and 26-30 are currently pending. The present response amends Claims 1-3, 12-14, 16, 17, 21, 23, 24, and 30. The changes and additions to the claims do not add new matter and are supported by the originally filed specification, for example, on page 2, line 32 to page 3, line 7, and in Figure 3.

In the Office Action, Claim 24 was rejected under 35 U.S.C. § 101; Claims 1-6, 12-18, 21-24, and 26-28 were rejected under 35 U.S.C. § 103(a) as unpatentable over Graf et al. (U.S. Patent No. 7,584,293, hereinafter “Graf”) in view of Khun-Jush (Jamshid Khun-Jush, HiperLAN Type 2: A Candidate for Fixed Wireless Access Systems Below 11 GHz & Wireless HUMAN, A Presentation to IEEE 802.16 BWA.3 Task Group & BWA HUMAN Group, July, 11, 2000, hereinafter “Khun-Jush”) and Gaedke et al. (U.S. Patent Pub. No. 2003/0152100, hereinafter “Gaedke”); Claims 7 and 8 were rejected under 35 U.S.C. § 103(a) as unpatentable over Graf in view of Khun-Jush, Gaedke, and Kisor (U.S. Patent No. 6,104,720); Claims 9 and 10 were rejected under 35 U.S.C. § 103(a) as unpatentable over Graf in view of Khun-Jush, Gaedke, and Fant (U.S. Patent No. 6,496,509); and Claims 19 and 20 were rejected under 35 U.S.C. § 103(a) as unpatentable over Graf in view of Khun-Jush, Gaedke, Lappetelainen et al. (U.S. Patent No. 6,671,495, hereinafter “Lappetelainen”).

Applicants acknowledge with appreciation the courtesy of Examiner Nguyen, Art Unit 2443, and Supervisory Patent Examiner Lee in conducting a personal interview with Applicants’ representatives, Tyson Crane Reg. No. 64,439 and Nikolaus Schibli, Ph.D., Reg. No. 56,994, on September 9, 2010. During the interview, the issues in the pending Office Action were discussed, substantially as summarized hereinafter. Specifically, the features directed to the at least two content-specific convergence layers and content-specific

connections were discussed. The present response includes clarifying amendments directed to these features.

In regard to the rejection of Claim 24 under 35 U.S.C. § 101, Applicants respectfully submit that the amendment to Claim 24 overcomes this ground of rejection. Claim 24 has been amended to recite a tangible non-transitory computer readable storage medium, as suggested by the Office Action at page 3, lines 7-13. Support for the amendment to Claim 24 can be found in a non-limiting manner in the originally filed specification, for example, on page 2, lines 6-10.

In addition, in the present response the specification has been amended to provide antecedent basis for “non-transitory” in the specification, as suggested by the Office Action, and to correct a minor informality.

Furthermore, Applicants note that Claim 24 has been amended to comply with Director Kappos’ memo of January 27, 2010 which stated that the subject matter eligibility of computer readable medium may be secured by excluding signal based embodiments described in the specification. To this end, Applicants have adopted the language “non-transitory” as suggested in the memo to address U.S. Patent and Trademark Office formalities only. More specifically, it is noted that the recitation of “non-transitory” is a limitation of the medium itself (i.e., tangible, not a signal) as opposed to a limitation on data storage persistency (e.g., RAM vs. ROM).

In regard to the rejection of Claim 1 under 35 U.S.C. § 103(a), Applicants respectfully submit that at least the amendments to Claim 1 overcome this ground of rejection, as next discussed.

Graf describes controlling the rate at which information is transmitted between access nodes separated by a core network.<sup>1</sup> In Graf digital information is transported to and from a

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<sup>1</sup> Graf, Abstract.

mobile terminal to another mobile terminal across an ATM core network using the ATM Adaptation Layer Type 2 (AAL2) transmission protocol.<sup>2</sup> Graf explains that the AAL2 is divided into a Common Part Sub-Layer (CPS) and a Service Specific Convergence Sub-Layer (SSCS).<sup>3</sup> Graf further explains that the purpose of the SSCS is to convey narrow-band calls consisting of voice, voiceband data, or circuit mode data.<sup>4</sup> In addition, Graf describes that different SSCS's have been defined to support specific AAL2 user services.<sup>5</sup>

Applicants note that, as is generally known, ATM networks are employed for transmitting real-time critical data. Accordingly, as is described in Graf, the purpose of the SSCS is to convey narrow-band calls consisting of voice, voice band data and circuit mode data.

The Office Action asserts, at page 4, lines 11-21, that the Service Specific Convergence Sub-layer (SSCS) of Graf corresponds to one of the content-specific convergence layers of Claim 1.

However, Applicants respectfully submit that Graf fails to teach at least ***two content-specific convergence layers*** adapted to exchange network traffic with other network devices of the device network ***via content-specific connections***, where the content-specific connections are ***adapted to the requirements of the respective content type*** and ***include a real-time critical data connection and a packet-based data connection***. By contrast, Graf merely describes a Service Specific Convergence Sub-layer that conveys narrow-band calls consisting of voice, voiceband data, or circuit mode data. Thus, even if we were to assume that the Service Specific Convergence Sub-layer of Graf corresponds to one of the content-specific convergence layers of Claim 1, the Service Specific Convergence Sub-layer of Graf is not adapted to exchange network traffic with other network devices of the device network

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<sup>2</sup> *Id.* at col. 5, ll. 33-35.

<sup>3</sup> *Id.* at col. 5, ll. 35-41.

<sup>4</sup> *Id.* at col. 5, ll. 41-43.

<sup>5</sup> *Id.* at col. 5, ll. 41-45.

*via content-specific connections*, where the content-specific connections are adapted to the requirements of the respective content type and ***include a real-time critical data connection and a packet-based data connection***. In particular, the feature of Claim 1 directed to the content-specific connections including a real-time critical data connection and a packet-based data connection is in clear contrast and incompatible with the teaching of Graf, wherein an ATM network is described, the ATM network being used for real-time critical data only.

Moreover, Applicants respectfully submit that Khun-Jush fails to cure the deficiencies of Graf, as next discussed.

Khun-Jush describes a protocol stack and shows a diagram depicting the service specific part and the common part.<sup>6</sup> In addition, Khun-Jush describes a mapping between higher layer connections/priorities and DLC connections/priorities and that there is segmentation and reassembly of the data packet.<sup>7</sup> Khun-Jush also refers to multiple convergence layers.<sup>8</sup>

The Office Action acknowledges, at page 5, line 4 to page 6, line 2, that Graf fails to teach at least two content-specific convergence layers but asserts that Khun-Jush cures these deficiencies. In particular, the Office Action asserts that the multiple convergence layers shown on page 6 in Khun-Jush correspond to the at least two content-specific convergence layers of Claim 1.

However, Applicants respectfully submit that Khun-Jush fails to teach at least ***two content-specific convergence layers*** adapted to exchange network traffic with other network devices of the device network *via content-specific connections*, where the content-specific connections are ***adapted to the requirements of the respective content type*** and ***include a real-time critical data connection and a packet-based data connection***. By contrast, Khun-Jush merely describes multiple convergence layers including UMTS, PPP, Firewire, and

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<sup>6</sup> Khun-Jush, p. 6.

<sup>7</sup> *Id.*

<sup>8</sup> *Id.*

Ethernet that are related to different protocols, a common part (CP), and a packet based layer.

Applicants note that the service specific part of Khun-Jush, the UMTS, PPP, Firewire, and Ethernet, merely relates to different protocols. Thus, even if we were to assume that one of the convergence layers of Khun-Jush corresponds to a content specific layer, Khun-Jush still fails to teach at least *two content-specific convergence layers* adapted to exchange network traffic with other network devices of the device network *via content-specific connections*, where the content-specific connections are *adapted to the requirements of the respective content type* and *include a real-time critical data connection and a packet-based data connection*.

In addition, Applicants respectfully submit that the cited passages of Gaedke, Kisor, Fant, and Lappetellainen, fail to cure the deficiencies of Graf and Khun-Jush discussed above.

Thus, Applicants respectfully submit that the rejection of Claim 1 under 35 U.S.C. § 103(a) is overcome.

Although differing in scope independent Claims 13, 21, and 24 recite features similar to those discussed above with respect to amended independent Claim 1. Accordingly, Applicants respectfully submit that the rejection of Claims 13, 21, and 24 under 35 U.S.C. § 103(a) are overcome for similar reasons as discussed above with respect to amended Claim 1.

For the reasons discussed above, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for allowance. Therefore, a Notice of Allowance for Claims 1-10, 12-24, and 26-30 is earnestly solicited.

Should the Examiner deem that any further action is necessary to place the present application in even better form for allowance, the Examiner is encouraged to contact Applicants' undersigned representative at the below-listed telephone number.

Respectfully submitted,

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